

Clipper/Shear Information

Why only a 4000 version?

Initially, many people questioned the discontinuation of the 3000 model, but after we explained our reasoning—logic set in. Here is why the 4000 is the only version currently available.

1. The lower price of the 3000 was not significant enough to justify the lower power and speed.

2. Many started with a 3000 for safety, but after a few animals they quickly wished for more speed and power.
3. The decision as to which model would be the best fit for a customer, resulted in wasted time for all included.

Should I replace my 3000?

No. Despite the discontinuation of the 3000 model, we will continue to repair and supply the parts it requires.

Can I handle a 4000?

Certainly, but added care may be needed. There is no question the 4000 is a stronger and faster motor. To make it “safe” only requires added focus until experience is gained. Beginners quickly become accustomed to the feel, balance and speed of the unit. Once comfortable, most users soon appreciate the power. No matter your experience level, shearing cuts can happen.

Does the tension really matter?

Definitely. Shear heads that lack tension can cause the cutter to fly off when the machine is on! This causes the fork fingers to fall into the comb ruining the gear drive. Too much tension results in serious friction = rapid wear = heat.

As a guide, turn the black tension knob down & force the cutter against the comb until resistance is felt. Then add a 1 more turn before turning the machine on.

Inferior tension on clipper blades will result in a machine that doesn't cut. Cranking the tension too high causes friction, heat and rapid material wear.

How valuable is oiling and why?

Maintaining proper lubrication of blades and parts reduces premature wear. Unlike universal motors, Premier's permanent magnet motors do not sound different when the blades are dry. **Apply oil every 3 minutes to the tips of the teeth.**

Why are ventilated heads superior?

In side by side tests, heads and blades that were ventilated by air driven forward and out through the heads were 20°F cooler during operation than identical heads that ventilated through the motor—without any change occurring in the motor temperature. This benefit is too important to ignore.



Is higher speed (strokes per minute) good or bad?

Higher speed under load produces a smoother finish—if all else is equal. If this is valued, use a higher speed unit.

But higher speed produces higher blade temperatures (more friction) and more rapid wear of blades/combs/cutters. It may also produce more noise and vibration.

Does high speed = high power?

No. Power is measured as torque not as rpm(s). Higher torque can maintain cutter or blade speed under higher loads (when pushed rapidly through dense, thick fiber).

Do higher watts = more power?

Watts measure energy converted into either power or heat. The ratio of power to heat measures a motor's efficiency.

Permanent magnet motors such as those in Premier's units are energy efficient. Push them rapidly through dense fiber & energy consumption jumps to 200 watts. As you pull them back for another stroke energy consumption drops to 50 watts.

By contrast universal motors (used in most other large machines) draw high watts when “idling.” That's a reason they run “hot” or exhaust more air and cause greater blade wear.



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